

Cambrian Khanka ophiolite in Primorye, Russia

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Khanka ophiolite is situated on the southeastern side of the Khanka Lake at the Chinese border. It is emplaced in the Early-Middle Cambrian fossiliferous limestone, and is unconformably covered by the conglomerate of the same age. The ophiolite is composed of highly dismembered, 1-2 km-size bodies of serpentinite, talc-magnesite rock, pyroxenite, metagabbro, and diabase. Relic spinel ($Cr\#=0.42-0.62$) in the serpentinite indicates moderately depleted mantle harzburgite protolith, which are similar to that of the Ordovician Oeyama ophiolite in SW Japan. Cambro-Ordovician ophiolites are also present in other circum-Pacific areas such as the Klamath Mts. (USA), Koryak Mts. (Russia), and eastern Australia, but the Khanka ophiolite is unique in view of its passive continental margin occurrence.